

CLAIMS

1. Tool for generating a microstructured surface, comprising:

- a matrix with a negative of the microstructure to be generated
- a pressure roller driveable over a surface, for pressing the matrix onto the surface,

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in which

the pressure roller and matrix are arranged so that when the roller passes over the surface the matrix executes a rolling movement between the roller and layer, so that the negative of the matrix faces towards the surface, and

10 a device for accelerating the curing of a curable material is arranged so that when the pressure roller passes over the surface it accompanies its movement and acts on a part of the surface.

2. Tool according to claim 1, wherein the matrix-forming material has a Shore hardness of 25 – 40.

15 3. Tool according to claim 1 or 2, wherein a roller is arranged so that when the tool is driven over the surface the roller removes the matrix.

4. Tool according to one of the preceding claims, wherein the surface material of the pressure roller has a Shore hardness of 20 to 50 and preferably has a diameter of 10 - 50 cm and/or a length of 20 - 100 cm.

20 5. Tool according to one of the preceding claims, wherein the tool is arranged so that the microstructuring of doubly curved surfaces, preferably of large structures such as aircraft and/or tracked vehicles, is permitted.

6. Tool according to one of the preceding claims, wherein the device for accelerating the curing comprises a lamp and/or a heating device for irradiating and/or heating the surface that can be microstructured.

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7. Tool according to claim 6, wherein the lamp is a UV light source.

8. Tool according to claim 6 or 7, wherein the device for accelerating the curing is mounted so that the curing of the curable material on the surface that can be microstructured is effected by through irradiation or heating of the matrix.
9. Tool according to one of the preceding claims, wherein the tool comprises a device for applying the curable material to a substrate or to the matrix.
10. Use of a tool according to one of the preceding claims, for generating a microstructured surface.
11. Method for generating an at least partially microstructured surface, comprising the following steps:
- 10 a) provision of a surface that can be microstructured,
b) provision of a tool according to one of claims 1 to 10,
c) microstructuring of the surface by means of the tool.
12. Method according to claim 11, comprising in step b) the provision of a tool according to one of claims 1 to 10 and a curing by the tool of the curable material on the surface that can be microstructured.
13. Method according to claim 12, in which the curing takes place by through irradiation or heating of the matrix.
14. Method according to one of claims 11 to 13, comprising in step b) the provision of a tool according to claim 9 and the application of a curable material to a substrate or to the matrix by the tool, so that according to step a) a surface that can be microstructured is provided.
15. Object with a multiply curved surface and, in the region of the multiple curvature, an at least partially microstructured surface, wherein the microstructure in the region of the multiple curvature can be generated by means of a tool according to one of claims 1 to 9 or a method according to one of claims 11 to 14.